CLAIMS:

The claims defining the invention are as follows:

1. A method of providing an adaptive user interface to a data repository, said method comprising the steps of:

providing a data repository, said data repository having associated meta-data; and

dynamically generating said user interface having interface elements that are dependent upon said meta data, operation of said interface controlled by events that also are dependent upon data in said data repository and said meta-data.

2. The method according to claim 1, wherein said generating step comprises the step of checking said data repository to ensure said database has associated meta-data, said meta-data defining relationships in said data repository

3. The method according to claim 2, wherein said generating step further comprises the step of building a menu as a tree object using said meta-data, levels in said tree being built from said meta-data.

4. The method according to claim 1, further comprising the step of accessing said user interface using a browser.

5. The method according to claim 4, further comprising the step of generating web pages for delivery to said browser to provide said user interface.

6. The method according to claim 1, wherein said interface elements comprise a main menu, said main menu being an expandable, hierarchically structured object.

7. The method according to claim 6, further comprising the step of building said main menu dependent upon said meta data.

8. The method according to any one of claims 1 to 7, wherein said meta-data comprises any one or more of the following:

sort order,

display name,

hierarchy,

table ID,

target object,

navigation URL, and

initial expansion.

9.   The method according to claim 7, further comprising the step of invoking a search screen, a list screen or a detail page if a menu item is selected.

10.   The method according to claim 1, further comprising the steps of automatically generating and displaying search and navigation elements of said user interface.

11.   The method according to claim 1, further comprising the step of providing at least one parameter pointing at said data repository to dynamically generate said user interface.

12.   The method according to claim 11, further comprising the step of providing a universal resource locator (URL) to a script location to run said user interface with said data repository as a parameter.

13.   The method according to claim 1, further comprising the steps of:

providing another data repository, said other data repository having associated meta-data; and

dynamically generating said user interface having different interface elements that are dependent upon said meta data of said other data repository, operation of said interface controlled by events that also are dependent upon data in said other data repository and said meta-data.

14.   The method according to claim 1, wherein said data repository is derived from a plurality of different database or transaction systems.

15.   An apparatus for providing an adaptive user interface to a data repository, said apparatus comprising:

a data repository having associated meta-data; and

means for dynamically generating said user interface having interface elements that are dependent upon said meta data, operation of said interface controlled by events that also are dependent upon data in said data repository and said meta-data.

16. The apparatus according to claim 15, wherein said generating means comprises means for checking said data repository to ensure said database has associated meta-data, said meta-data defining relationships in said data repository

17. The apparatus according to claim 16, wherein said generating means further comprises means for building a menu as a tree object using said meta-data, levels in said tree being built from said meta-data.

18. The apparatus according to claim 15, further comprising a browser for accessing said user interface.

19. The apparatus according to claim 18, further comprising means for generating web pages for delivery to said browser to provide said user interface.

20. The apparatus according to claim 15, wherein said interface elements comprise a main menu, said main menu being an expandable, hierarchically structured object.

21. The apparatus according to claim 20, further comprising means for building said main menu dependent upon said meta data.

22. The apparatus according to any one of claims 15 to 21, wherein said meta-data comprises any one or more of the following:

sort order,

display name,

hierarchy,

table ID,

target object,

navigation URL, and

initial expansion.

23. The apparatus according to claim 21, further comprising means for invoking a search screen, a list screen or a detail page if a menu item is selected.

24. The apparatus according to claim 15, further comprising means for automatically generating and displaying search and navigation elements of said user interface.

25. The apparatus according to claim 15, further comprising means for providing at least one parameter pointing at said data repository to dynamically generate said user interface.

26. The apparatus according to claim 25, further comprising
5 means for providing a universal resource locator (URL) to a script location to run said user interface with said data repository as a parameter.

27. The apparatus according to claim 15, further comprising:

another data repository having associated meta-data; and

means for dynamically generating said user interface having different
10 interface elements that are dependent upon said meta data of said other data repository, operation of said interface controlled by events that also are dependent upon data in said other data repository and said meta-data.

28. The apparatus according to claim 15, wherein said data repository is derived from a plurality of different database or transaction systems.

15 29. A computer program product for providing an adaptive user interface to a data repository, said computer program product comprising:

computer program code means for providing a data repository having associated meta-data; and

computer program code means for dynamically generating said user
20 interface having interface elements that are dependent upon said meta data, operation of said interface controlled by events that also are dependent upon data in said data repository and said meta-data.

30. The computer program product according to claim 29, wherein said computer program code means for generating comprises computer program code
25 means for checking said data repository to ensure said database has associated meta-data, said meta-data defining relationships in said data repository .

31. The computer program product according to claim 30, wherein said computer program code means for generating further comprises computer program code means for building a menu as a tree object using said meta-data, levels
30 in said tree being built from said meta-data.

32.   The computer program product according to claim 29, further comprising computer program code means for accessing said user interface using a browser.

33.   The computer program product according to claim 32, further comprising computer program code means for generating web pages for delivery to said browser to provide said user interface.

34.   The computer program product according to claim 29, wherein said interface elements comprise a main menu, said main menu being an expandable, hierarchically structured object.

35.   The computer program product according to claim 34, further comprising computer program code means for building said main menu dependent upon said meta data.

36.   The computer program product according to any one of claims 29 to 35, wherein said meta-data comprises any one or more of the following:

sort order,

display name,

hierarchy,

table ID,

target object,

navigation URL, and

initial expansion.

37.   The computer program product according to claim 35, further comprising computer program code means for invoking a search screen, a list screen or a detail page if a menu item is selected.

38.   The computer program product according to claim 29, further comprising computer program code means for automatically generating and displaying search and navigation elements of said user interface.

39.   The computer program product according to claim 29, further comprising computer program code means for providing at least one parameter pointing at said data repository to dynamically generate said user interface.

40.   The computer program product according to claim 39, further comprising computer program code means for providing a universal resource locator (URL) to a script location to run said user interface with said data repository as a parameter.

5   41.   The computer program product according to claim 29, further comprising:

computer program code means for providing another data repository having associated meta-data; and

computer program code means for dynamically generating said user

10   interface having different interface elements that are dependent upon said meta data of said other data repository, operation of said interface controlled by events that also are dependent upon data in said other data repository and said meta-data.

42.   The computer program product according to claim 29, wherein said data repository is derived from a plurality of different database or transaction

15   systems.

43.   A system for adaptively interfacing with a data repository, said system comprising:

a data repository comprising a data set and meta data;

a server coupled to said data repository;

20   a dynamically generated adaptive interface coupled to said server, said user interface having interface elements that are dependent upon said meta data, operation of said interface being controlled by events that also are dependent upon data in said data repository and said meta-data.

44.   The system according to claim 43, wherein said data set

25   satisfies a specified framework of said adaptive interface.

45.   The system according to claim 43, wherein said meta-data defines relationships in said data repository

46.   The system according to claim 45, wherein a menu is built as a tree object using said meta-data, levels in said tree being built from said meta-data.

30   47.   The system according to claim 43, further comprising a browser to access said user interface via said server.

48.   The system according to claim 47, wherein said server is a web server and generates web pages for delivery to said browser.

49.   The system according to claim 43, wherein said interface elements comprise a main menu, said main menu being an expandable, hierarchically structured object.

50.   The system according to claim 49, wherein said main menu is built dependent upon said meta data.

51.   The system according to any one of claims 43 to 50, wherein said meta-data comprises any one or more of the following:

sort order,

display name,

hierarchy,

table ID,

target object,

navigation URL, and

initial expansion.

52.   The system according to claim 50, wherein a search screen, a list screen or a detail page is invoked if a menu item is selected.

53.   The system according to claim 43, wherein search and navigation elements of said user interface are automatically generated and displayed.

54.   The system according to claim 43, further comprising at least one parameter pointing at said data repository to dynamically generate said user interface.

55.   The system according to claim 54, further comprising a universal resource locator (URL) pointing to a script location to run said user interface with said data repository as a parameter.

56.   The system according to claim 43, further comprising another data repository having associated meta-data, and wherein said user interface is dynamically generated having different interface elements that are dependent upon said meta data of said other data repository, operation of said interface being controlled by events that also are dependent upon data in said other data repository and said meta-data.

56.   The system according to claim 43, wherein said data repository is derived from a plurality of different database or transaction systems.

57.   A system providing an adaptive user interface to a data repository, said system comprising:

5   a storage unit for storing data and computer program code to be carried out by a processing unit;

a processing unit coupled to said storage unit, said processing unit being programmed with said computer program code to:

access a data repository having associated meta data; and

10   dynamically generate said user interface having interface elements that are dependent upon said meta data, operation of said interface controlled by events that also are dependent upon data in said data repository and said meta-data.

58.   The system according to claim 57, wherein said processing unit is programmed with said computer program code to check said data repository to

15   ensure said database has associated meta-data, said meta-data defining relationships in said data repository

59.   The system according to claim 58, wherein said processing unit is programmed with said computer program code to build a menu as a tree object using said meta-data, levels in said tree being built from said meta-data.

20   60.   The system according to claim 57, wherein said processing unit is programmed with said computer program code to access said user interface using a browser.

61.   The system according to claim 60, wherein said processing unit is programmed with said computer program code to generate web pages for

25   delivery to said browser to provide said user interface.

62.   The system according to claim 57, wherein said interface elements comprise a main menu, said main menu being an expandable, hierarchically structured object.

63.   The system according to claim 62, wherein said processing

30   unit is programmed with said computer program code to build said main menu dependent upon said meta data.

64.   The system according to any one of claims 57 to 63, wherein said meta-data comprises any one or more of the following:

sort order,

display name,

hierarchy,

table ID,

target object,

navigation URL, and

initial expansion.

65.   The system according to claim 63, wherein said processing unit is programmed with said computer program code to invoke a search screen, a list screen or a detail page if a menu item is selected.

66.   The system according to claim 57, wherein said processing unit is programmed with said computer program code to automatically generate and display search and navigation elements of said user interface.

67.   The system according to claim 57, wherein said processing unit is programmed with said computer program code to provide at least one parameter pointing at said data repository to dynamically generate said user interface.

68.   The system according to claim 67, wherein said processing unit is programmed with said computer program code to provide a universal resource locator (URL) to a script location to run said user interface with said data repository as a parameter.

69.   The system according to claim 57, wherein said processing unit is programmed with said computer program code to:

access another data repository having associated meta-data; and

dynamically generate said user interface having different interface elements that are dependent upon said meta data of said other data repository, operation of said interface controlled by events that also are dependent upon data in said other data repository and said meta-data.

70.   The system according to claim 57, wherein said data repository is derived from a plurality of different database or transaction systems.